

*U.S. Patent Application Serial No. 10/526,897
Response filed November 21, 2007*

REMARKS

Claims 2-8 remain in this application and claim 9 is added. Throughout the claims, "still image data" is changed to "frame data" for clarity. Claim 1 has been canceled without prejudice to reentry and its subject matter added to claim 2; the subject matter of claim 2 is not changed. The other claims are amended to conform with amended claim 2. New claim 9 is supported in the last paragraph on page 16. It is patentable for the reasons below.

No new matter has been added. It is believed that this Amendment is fully responsive to the outstanding Office Action. In response to the outstanding Office Action:

[1-2] Claims 1-5, 7, and 8 are rejected under 35 U.S.C. §103(a) as being obvious over Katta et al., US 6,115,421 in view of Taniguchi, US 6,222,841. This rejection is respectfully traversed.

An Analogy. The Applicant's apparatus could be analogous to a projector for a movie film ("audio data and a plurality of screens of frame data that are related with each other in parallel") in which the sound track and the pictures were recorded at slightly different rates, so that they gradually went out of synch; for example, each frame, which should occupy 0.0333... (1/30) second, might actually occupied 0.033 second, so that the mismatch would be 1/100th second per frame, and the lack of synchronization ("an error at a predetermined cycle") could be calculated by multiplying the numbers of frames by 1/100th second. The projector would adjust the picture to the sound by periodically removing a frame (this is, of course, physically impossible with film in a projector). This projector would count the frames as they were projected ("counting means") and remove every hundredth frame ("adjusting means"), while the sound continued without interruption.

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Analogies are of course inexact, but can point up differences. The Examiner is invited to consider a similar analogy for the applied reference.

Katta. Audio data is not mentioned in this reference, but the Examiner asserts that the MPEG2 Standard mentioned at column 1, line 31, includes audio data.

However, Katta is concerned with the video, and ignores the audio, and Katta does not disclose *correlation of audio and video data*. Katta “relates to ... digital compression encoding of images” (TECHNICAL FIELD at col. 1, line 5) and claims “controlling ... compressing [of] a picture” (claim 1 at col. 16, line 48). In the Applicant’s analogy above, Katta would, e.g., compress the pictures by folding each frame of the film over itself (the analogy is becoming more strained here); but Katta would *ignore* the sound track alongside the picture frames.

(1) With respect, Katta cannot disclose the Applicant’s apparatus, which recites an interrelationship between sound and picture: “*audio data and frame data that are related with each other in parallel ... amount of said audio data ... screens of said frame data ... the number of screens of the processed frame data ... audio data at every one screen period ... amount corresponding to one screen*” (claim 2).

(2) Katta sets its target based on “complexity” of the image (e.g., Figs. 6a, 6b) and, with respect, no relation between Katta’s target and the Applicant’s virtual processing amount is seen. The Applicant is concerned with relative rates, not complexity.

(3) The Examiner admits that Katta fails to teach adjusting the number of video frames, and relies on Taniguchi for this feature. Taniguchi is concerned with crowded channels (column 1, lines 25-30) and discloses adjusting the number of frames at column 1, line 51.

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Taniguchi breaks the data into packets, each with a respective header. One packet can correspond to one video frame, for example. The packets have different priorities for filtering, i.e., deleting (column 12, lines 45-51). The header includes a "type identifier" which identifies whether the packet contains video data, audio data, or something else (column 10, lines 32-42). When the channel becomes crowded, a processing unit decides to abandon (delete) some of the packets based on their type (column 7, lines 38-41) and to transmit others. The packet types can be "hierarchically set" (column 10, lines 35-37) and the priority can be set by the user (column 10, line 61 to column 11, line 8). It appears that either the video or the audio can be given priority (column 14, line 44) and Taniguchi states that "there is no absolute priority order among video, audio, and user data" (column 15, line 58). Packet priority is discussed under the heading at column 16, line 16.

Thus, Taniguchi discloses abandoning (deleting) one-screen video packets while keeping all audio packets. However, *Taniguchi does not disclose adjusting a number of video packets based on an error between virtual and real processing of audio data.*

The Applicant respectfully submits that neither of the references discloses a main aspect of the Applicant's apparatus, or the claimed subject matter; and that, because of this, no combination (none is admitted obvious) could reach the instant claims.

(4) Katta does not adjust anything by deleting frames, it adjusts by spreading bits around: for example, "the error component is gradually absorbed in the target number of bits in the subsequent GOPs" (col. 7, line 20; a GOP is a group of pictures, see col. 1, line 56)).

(5) In rejecting claim 2, the Examiner states that Katta does not count the frames, and relies on Taniguchi for counting and an asserted teaching that the number of frames can be

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adjusted (Taniguchi is cited at col. 1, lines 31-35 for changing a number of frames, but it is noted that this is Taniguchi's prior art and Taniguchi teaches against it at col. 1, line 36-40).

Katta discloses counting "pictures" at box 14 in Fig. 5 (also please note 222 in Fig. 14) and gives an example of a GOP with 15 frames (col. 7, line 2). Box 14 is one of seven inputs to the control unit 16, the sole output of which is a quantity q_scale , which is an input to the encoding processor 20. However, q_scale does not incorporate the picture count, either in the first embodiment (see col. 6, lines 34-39) or in the second (see col. 11, lines 57-61). Also, a formula for q_scale appears in S20 of Fig. 15a and at line 31 in col. 12, and none of the quantities in the formula is a frame count (col. 12, lines 12-29).

Thus, it appears that Katta counts frames but does *not* use the count as the Applicant does.

The Examiner cites Taniguchi at col. 1, lines 31-35 for changing a number of frames, but this is Taniguchi's prior art and the reference itself teaches against it (col. 1, line 36-40).

The Applicant again notes that neither of the references discloses adjusting an number of frames based on *audio* data.

(6) The Examiner gives as motivation for combining the references that "changing the number of frames according to the calculated error will allow the target and actual processing amount to catch up," but there is no citation to the references for this asserted motivation. The Applicant respectfully questions whether this asserted motivation does not actually come from the Applicant, instead of from the prior art?

(7) New claim 9 recites a feature that is not disclosed in either one of the references.

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(8) The other dependent claims are allowable by their dependence and for reciting additional features not disclosed or suggested by the prior art.

[3] Claim 6 is rejected under 35 U.S.C. §103(a) as being obvious over Katta in view of Taniguchi and further in view of Maruyama et al., US 6,891,539. This rejection is respectfully traversed both on the basis of its dependence and also on the basis of its features.

In view of the amendments and remarks above, allowance is requested. The Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Respectfully submitted,

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